



March 15, 2016

SUBMITTED ELECTRONICALLY

Mr. Daniel L. Carlson, P.G., C.E.G., C.HG.
Sr. Engineering Geologist
California Regional Water Quality
Control Board - Central Valley Region
1685 "E" Street
Fresno, CA 93706

**RE: Lost Hills Sanitary Landfill; Kern County
Comments on Tentative Waste Discharge Requirements**

Dear Mr. Carlson:

Thank you for providing the Kern County Public Works Department (KCPWD) the opportunity to provide comments on the Tentative Waste Discharge Requirements (WDRs) dated February 12, 2016, for the Lost Hills Sanitary Landfill (SLF).

The KCPWD's comments regarding the Tentative WDRs are presented below. For ease of Water Board review, each section of specific language as stated in the tentative document is displayed in italics followed by the KCPWD's comments.

Waste Discharge Requirements

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

2. *The total property boundary encompasses 537 acres which contains one unlined waste management unit (WMU) covering 6.7 acres, as shown in Attachment B, which is incorporated herein and made part of this Order by reference. The facility is comprised of Assessor's Parcel Numbers (APN) 58-180-28, 58-180-29, 58-180-43, and 58-240-46.*

Comment: The KCPWD acquired additional buffer after the last WDRS were issued. The KCPWD requests this finding be revised to read as follows:

The total property boundary encompasses 547.15 acres which contains one unlined waste management unit (WMU) covering 6.7 acres, as shown in Attachment B, which is incorporated herein and made part of this Order by reference. The facility is comprised of Assessor's Parcel Numbers (APN) 058-180-28, 058-180-43, 058-180-46, and 57-240-46, and 057-240-47.

19. *The 100-year, 24-hour precipitation event for the facility is estimated to be 2.5 inches, based on the Kern County Hydrology Manual, 1992.*

Comment: KCPWD no longer uses the *Kern County Hydrology Manual* (1992) to estimate design storms. Instead it uses data provided by the National Oceanic and Atmospheric Administration. Therefore, the KCPWD requests that this finding be changed to read:

The 100-year, 24-hour precipitation event for the facility was previously estimated to be 2.5 inches by the Kern County Hydrology Manual, dated 1992, using rainfall data published by the National Oceanic and Atmospheric Administration (NOAA) in 1973. Kern County now uses the 2011 NOAA Atlas, Volume 6, version 2, updated rainfall data for the Southwestern United States to determine design storm intensity. Based on the new dataset, the 100-year, 24-hour precipitation event for the facility is now 3.01 inches.

GROUNDWATER AND UNSATURATED ZONE MONITORING

34. *In order to provide the best assurance of the earliest possible detection of a release of non-naturally occurring waste constituents from a landfill unit, the SPRRs specify a non-statistical method for the evaluation of monitoring data for non-naturally occurring compounds. The specified non-statistical method for evaluation of monitoring data provides two criteria (or triggers) for making the determination that there has been a release of non-naturally occurring waste constituents from a landfill unit. The presence of two non-naturally occurring waste constituents above their respective method detection limit (MDL), or one non-naturally occurring waste constituent detected above its practical quantitation limit (PQL) [a.k.a., laboratory reporting limit (RL)], indicates that a release of waste from a Unit has occurred. Following an indication of a release, verification testing must be conducted to determine whether there has been a release from the landfill unit or the detection was a false detection. The detection of two non-naturally occurring waste constituents above the MDL as a trigger is appropriate due to the higher risk of false-positive analytical results and the corresponding increase in sampling and analytical expenses from the use of one non-naturally occurring waste constituent above its MDL as a trigger.*

Comment: KCPWD requests this finding be revised to read as follows:

In order to provide the best assurance of the earliest possible detection of a release of non-naturally occurring waste constituents from a landfill unit, the SPRRs specify a non-statistical method for the evaluation of monitoring data for non-naturally occurring compounds. The specified non-statistical method for evaluation of monitoring data provides two criteria (or triggers) for making the determination that there has been a release of non-naturally occurring waste constituents from a landfill unit. The presence of two non-naturally

occurring waste constituents above their respective method detection limit (MDL), or one non-naturally occurring waste constituent detected above its practical quantitation limit (PQL) [a.k.a, laboratory reporting limit (RL)], indicates that a release of waste from a Unit may have occurred. Following an indication of a potential release, verification testing must be conducted to determine whether there has been a release from the landfill unit or the detection was a false detection. The detection of two non-naturally occurring waste constituents above the MDL as a trigger is appropriate due to the higher risk of false-positive analytical results and the corresponding increase in sampling and analytical expenses from the use of one non-naturally occurring waste constituent above its MDL as a trigger.

LANDFILL POST-CLOSURE MAINTENANCE

51. *Once every five years during the post-closure maintenance period, aerial photographic maps of the closed landfill area will be made to identify and evaluate landfill settlement. Iso-settlement maps will be prepared to determine the amount of differential settlement occurring over the previous five years. Pursuant to Title 27, section 21090(e)(2), this Order requires iso-settlement maps to be prepared and submitted every five years.*

Comment: To allow flexibility in the way the iso-settlement maps are completed, KCPWD requests this finding be revised to read as follows:

Once every five years during the post-closure maintenance period of the closed landfill area, iso-settlement maps will be made to identify and evaluate landfill settlement. Iso-settlement maps will be prepared to determine the amount of differential settlement occurring over the previous five years. Pursuant to Title 27, Section 21090(e)(2), this Order requires iso-settlement maps to be prepared and submitted every five years. The maps may be completed using aerial photography or another appropriate method.

G. PROVISIONS

1. *The Discharger shall maintain a copy of this Order at the facility, including the MRP R5-2016-XXXX and the SPRRs, and make it available at all times to facility operating personnel, who shall be familiar with its contents, and to regulatory agency personnel.*

Comment: The facility is closed and typically there are no personnel on site, KCPWD requests this provision be modified as follows:

The Discharger shall maintain a copy of this Order at the offices of the Kern County Public Works Department, including the MRP R5-2016-XXXX and the SPRRs dated January 2012, and make it available at all

times to facility maintenance personnel, who shall be familiar with its contents, and to regulatory agency personnel.

MONITORING AND REPORTING PROGRAM R5-2016-XXXX

B. REPORTING

The Discharger shall submit the following reports in accordance with the required schedule:

Reporting Schedule

<u>Section</u>	<u>Report</u>	<u>End of Reporting Period</u>	<u>Due Date</u>
B.1	Semiannual Monitoring Report	30 June, 31 December	31 August, 28 February
B.2	Annual Monitoring Report	31 December	28 February
B.3	Seep Reporting	Continuous	Immediately & 7 Days
B.4	Annual Facility Inspection Report	31 October	15 November
B.5	Major Storm Event Reporting	Continuous	7 days from damage discovery
B.6	Survey and Iso- Settlement Map for Closed Landfills	Every Five Years	2016 and Every Five Years
B.7	Financial Assurances Report	31 December	1 June

Comment: Historically, KCPWD has submitted semi-annual monitoring reports for the landfill by 31 May for fourth and first quarters and 30 November for the second and third quarters. Annual reports were submitted by 30 April each year. This arrangement spread the due dates for KCPWD's 14 semiannual self-monitoring reports over several months. Currently, KCPWD has 9 SMRs due in February. The KCPWD requests the schedule be revised to read:

B. REPORTING

The Discharger shall submit the following reports in accordance with the required schedule:

Reporting Schedule

<u>Section</u>	<u>Report</u>	<u>End of Reporting Period</u>	<u>Due Date</u>
B.1	Semiannual Monitoring Report	31 March, 30 September	31 May, 30 November
B.2	Annual Monitoring Report	31 December	30 April
B.3	Seep Reporting	Continuous	Immediately & 7 Days
B.4	Annual Facility Inspection Report	31 October	15 November
B.5	Major Storm Event Reporting	Continuous	7 days from damage discovery
B.6	Survey and Iso-Settlement Map for Closed Landfills	Every Five Years	2016 and Every Five Years
B.7	Financial Assurances Report	31 December	1 June

Reporting Requirements Required Reports

1. **Semiannual Monitoring Report:** *Monitoring reports shall be submitted semiannually and are due on **31 August** and **28 February**. Each semiannual monitoring report shall contain at least the following:*

Comment: Historically, KCPWD has submitted semi-annual monitoring reports for the landfill by 31 May for fourth and first quarters and 30 November for the second and third quarters. Annual reports were submitted by 30 April each year. This arrangement spread the due dates for KCPWD's 14 semiannual self-monitoring reports over several months. Currently, KCPWD has nine SMRs due in February. KCPWD requests the schedule be revised to read:

Semiannual Monitoring Report: Monitoring reports shall be submitted semiannually and are due on **31 May** and **30 November**. Each semiannual monitoring report shall contain at least the following:

- g) *An evaluation of the effectiveness of the leachate monitoring and control facilities, and of the run-off/run-on control facilities. Include a summary of any instances where leachate depth on an MSW landfill liner system exceeded 30 cm (excluding the leachate sump), and information about the required notification and corrective action in Standard Facility Specification E.13 of the SPRRs.*

Comment: The closed landfill is unlined with no leachate monitoring and control facilities. KCPWD requests this section be changed to read:

An evaluation of the effectiveness of the run-off/run-on control facilities.

Annual Monitoring Report: *The Discharger shall submit an Annual Monitoring Report to the Central Valley Water Board by **28 February** covering the reporting period of the previous monitoring year. If desired, the Annual Monitoring Report may be combined with the second semiannual report, but if so, shall clearly state that it is both a semi-annual and annual monitoring report in its title. Each Annual Monitoring Report shall contain the following information:*

Comment: Please see the comment above regarding scheduling. KCPWD requests this section be changed to read:

Annual Monitoring Report: The Discharger shall submit an Annual Monitoring Report to the Central Valley Water Board by **30 April** covering the reporting period of the previous monitoring year. If desired, the Annual Monitoring Report may be combined with the second semiannual report, but if so, shall clearly state that it is both a semi-annual and annual monitoring report in its title. Each Annual Monitoring Report shall contain the following information:

- h) *Updated concentration limits for each monitoring parameter at each monitoring well based on the new data set.*

Comment: The monitoring wells at the landfill are sampled twice per year. It is unlikely that two additional data points will have a significant effect on the value of the WQPS for any given constituent. There has been no evidence of a release of naturally occurring constituents from the landfill and based on experience at other landfills, the most likely form of a release will be associated with volatile organic compounds originating in landfill gas.

KCPWD does not believe that calculating a WQPS annually will yield useful information. California Water Code Section 13267 states that "the burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." KCPWD believes that the cost necessary to obtain this information exceeds the need and benefits for the information. KCPWD requests this requirement be consistent with other recent WDRs (China Grade, Kern Valley, Lebec, and McFarland-Delano) promulgated by the Central Valley Water Board and that it be modified to read:

The background groundwater quality at the facility may vary with time. This Order requires the WQPS to be updated, at a minimum, every five years; or as required by natural changes in background water quality.

C. WATER QUALITY PROTECTION STANDARD AND COMPLIANCE PERIOD

1. Water Quality Protection Standard Report

For each waste management unit, the Water Quality Protection Standard shall consist of all COCs, the concentration limit for each constituent of concern, the verification retesting procedure to confirm measurably significant evidence of a release, the point of compliance, and all water quality monitoring points for each monitored medium.

The Water Quality Protection Standard for naturally occurring waste constituents consists of the COCs, the concentration limits, and the point of compliance and all monitoring points. Any proposed changes to the Water Quality Protection Standard other than annual update of the concentration limits shall be submitted in a report for review and approval.

Comment: As stated above, KCPWD does not believe that updating the WQPS annually is warranted. KCPWD requests that this section be revised to read:

For each waste management unit, the Water Quality Protection Standard shall consist of all COCs, the concentration limit for each constituent of concern, the verification retesting procedure to confirm measurably significant evidence of a release, the point of compliance, and all water quality monitoring points for each monitored medium.

The Water Quality Protection Standard for naturally occurring waste constituents consists of the COCs, the concentration limits, and the point of compliance and all monitoring points. Any proposed changes to the Water Quality Protection Standard other than those updates of the concentration limits performed concurrently with the five-year COCs monitoring event (described in Item 3 below) beginning in 2018 and every five years thereafter shall be submitted in a report for review and approval.

Farther down in the same section updating the WQPS is addressed again:

The Water Quality Protection Standard shall be updated annually for each monitoring well using new and historical monitoring data.

Comment: As stated above, the KCPWD does not believe that updating the WQPS annually is warranted. KCPWD requests that this section be revised to read:

The Water Quality Protection Standard shall be updated concurrently with the five-year COCs monitoring event (described in Item 3 below) beginning in 2018 and every five years later for each monitoring well using new and historical monitoring data.

4. Concentration Limits

Initially, for each given monitoring parameter at a given monitoring well, the proposed background data set shall consist of all validated data from that compliance well for the previous sixteen monitoring events. Every two years, following the adoption of this Monitoring and Reporting Program, as part of the annual monitoring summary report [see 27CCR §20415(e)(14)], the Discharger shall add the newer data to the background data set for each well after validating (via a method approved by the Executive Officer) that the new data does not contain data indicating a statistically significant increase over the existing background data. The Discharger shall validate the proposed intra-well background data set as follows for each well (initially) or, subsequently, at a new well. The Discharger shall report the validated or updated background data set, for each well in the next scheduled monitoring report.

Comment: As stated above, KCPWD does not believe that updating the WQPS annually is warranted. This statement implies that if the new data indicates that a statistically significant increase in background data is identified, that the data will not be used in determining background. The groundwater system at the site is not in a steady state and the concentrations of naturally occurring analytes may increase or decrease due to influences other than the landfill. If background concentrations increase, the WQPS should also increase. KCPWD requests that this section be revised to read:

Initially, for each given monitoring parameter at a given monitoring well, the proposed background data set shall consist of all validated data from that compliance well for the previous 16 monitoring events. Every five years (beginning in 2018) following the adoption of this Monitoring and Reporting Program, as part of the annual monitoring summary report [see 27CCR §20415(e)(14)], the Discharger shall add the newer data to the background data set for each well. The Discharger shall report the validated or updated background data set, for each well in the next scheduled monitoring report.

Thank you for providing KCPWD the opportunity to comment on the Tentative Waste Discharge Requirements dated February 12, 2016, for the Lost Hills Sanitary Landfill. If you have any questions, please contact me at (661) 862-8686.

Sincerely,



Michael R. Burstson, P.G.
Supervising Engineer